

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 10/572,616 Conf. No.: 7655  
Inventor: Raoul Florent et al.  
Filed: October 18, 2006  
TC/AU: 2624  
Examiner: Nancy Bitar  
Title: Medical Imaging System with Temporal Filter  
Docket No.: FR030105US1 (PHB-10-6607)  
Customer No.: 24737

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Mail Stop RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

November 3, 2009

**37 C.F.R. 1.132 Declaration for Mathieu Picard**

Dear Sir:

Filed in conjunction with the Request for Continued Examination (RCE), please reconsider the above-identified application in view of the comments herein.

### **Declaration for Mathieu Picard**

I, **MATHIEU PICARD**, state as follows:

I am one of the inventors in the above-entitled application. I have received a Master's Degree in Science and Engineering at Eal. Polytechnique and an Engineering Degree at TELECOM Paris Tech. I have been employed with Philips Healthcare located in Suresnos, France, from 2002 to the present. My current title is Research Engineer, and my principal activities while employed at Philips Healthcare have included designing and implementation of image processing algorithms for enhancement of medical x-ray images.

My credentials represent that at the very least, I have ordinary skill in the art of medical imaging.

I have reviewed the present application and have reviewed the teachings in the Zlokolic et al. publication and the Eck et al. publication US 2006/0072845 A1. The above-entitled application is not patently obvious in light of these teachings.

Zlokolic et al. discloses processing along four bands LL, LH, HL, and HH using filters LLF, LHF, HLF and HHF. These temporal filters adapt based on spatial detail, which is defined as the local dispersion of pixels compared to the average grey area of the pixels in a current window. Zlokolic et al. is silent regarding a filter that temporally filters one or more slices according to the temporal content in each slice. Nor would one having ordinary skill in the art find such a filter to be obvious from Zlokolic et al. in view of what is generally known in the art of medical imaging.

Eck et al. discloses multi-gradient filtering using both Gaussian and Laplacian decomposition. The Gaussian pyramid representations are generated by using low-pass filtering. The Laplacian pyramid representations are also generated using low-pass filtering. The gradient coefficients are subsequently calculating using the low-pass filtered Laplacian representations. Eck et al. is silent regarding a filter for differently

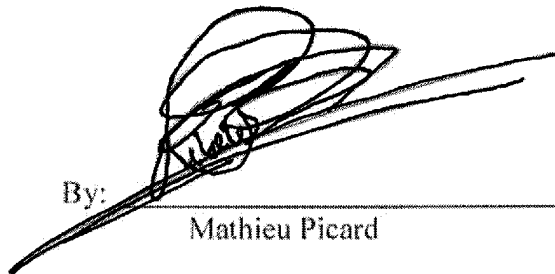
filtering slices according to their temporal content, where one or more high frequency slices are filtered at a greater rate than one or more low frequency slices. Nor would one having ordinary skill in the art find such a filter to be obvious from Eck et al. in view of what is generally known in the art of medical imaging. In conclusion, the combination of these teachings fail to disclose a filter that temporally filters one or more of the slices for differently filtering the slices according to the variation of content in time, where one or more high frequency slices are filtered at a greater rate than one or more low frequency slices, as recited within the above-listed claims. One skilled in the art would not find the current claims obvious in light of the cited teachings and what is generally known in the art of medical imaging.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 USC 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date:

Dec 6<sup>th</sup> 2009

By:

A handwritten signature in black ink, appearing to read 'Mathieu Picard', is written over a horizontal line. The signature is stylized with loops and a long horizontal stroke extending to the right.

Mathieu Picard

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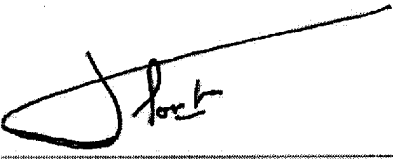
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Date: Dec. 4<sup>th</sup> 2009

By:   
Raoul Florent